



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D3179-041
Job Sheet 211681



Part No: D3179-041

Job Qty: 5 pcs

Part Name: Litter Tie Down (Non-Locking)



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/24/20

Job Tracking No:

Due Date: 8/31/20

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV E IPP A1 03.01.09 Added Acid etch end alodine RF IPP Rev:B Added Powder Coat 07-07-04 JLM
IPP REV:C AS PER REV D JLM 13-05-24 VERIFIED BY:DD IPP Rev:C 08-12-10 add part list DD verified
by:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Bandsaw - 1	5 pcs			0.00	0.41	Bandsaw - 1		ALA 20/08/02
110	HAAS 4 Axis - B4B	5 pcs			0.37	9.09	HAAS - 1 - B4B		
							HAAS - 2 - B4B		
							HAAS - 3 - B4B		ALA 20/08/02
							HAAS - 4 - B4B		
120	QC 2	5 pcs			0.00	0.00	QC 2 - 1		
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		DAS 86 9-89 ALA 20/08/02
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		



Container No: S291467



Part: D3179-041

Job No: 211681

Serial No/Batch: S291467

Revision: C

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 08/02/20

			QC 2 - 62	
			QC 2 - 63	
			QC 2 - 8	
			QC 2 - 66	
			QC 2 - 64	
			QC 2 - 65	
			QC 2 - 5	
			QC 2 - 71	
			QC 2 - 73	
			QC 2 - 69	
			QC 2 - 76	
			QC 2 - 86	
			QC 2 - 83	
			QC 8 - 12	
			QC 8 - 14	
			QC 8 - 17	
			QC 8 - 20	
			QC 8 - 25	
			QC 8 - 3	
130 QC 8	5 pcs	0.00 0.00	QC 8 - 32	
			QC 8 - 33	
			QC 8 - 35	
			QC 8 - 39	
			QC 8 - 4	
			QC 8 - 44	
			QC 8 - 45	
			QC 8 - 49	
			QC 8 - 58	
			QC 8 - 8	
			QC 8 - 9	
			QC 8 - 68	
			QC 8 - 67	
			QC 8 - 1 (A)	
			QC 8 - 47	
			QC 8 - 40	
			QC 8 - 52	
			QC 8 - 23	
			QC 8 - 57	
			QC 8 - 76	
			QC 8 - 61	
			QC 8 - 66	
			QC 8 - 73	
			QC 8 - 82	
140 Handfinish - 1-1 Chemical-B4B	5 pcs	0.00 0.41	Handfinish - 1 - 1 - B4B	
			Handfinish - 1 - 2 - B4B	
			Handfinish - 1 - 3 - B4B	
			Handfinish - 1 - 4 - B4B	
			Handfinish - 1 - 5 - B4B	
			Handfinish - 1 - 6 - B4B	
			Handfinish - 1 - 7 - B4B	
			Handfinish - 1 - 8 - B4B	
			Handfinish - 1 - 9 - B4B	
			Handfinish - 1 - 10 - B4B	
			Handfinish - 1 - 11 - B4B	
			Handfinish - 1 - 12 - B4B	
			Handfinish - 1 - 13 - B4B	
			Handfinish - 1 - 14 - B4B	
			Handfinish - 1 - 15 - B4B	
			Handfinish - 1 - 16 - B4B	

DIP 20-08-04

150 QC 7	5 pcs	0.00 0.00	Handfinish - 1 - 17 - B4B	
			Handfinish - 1 - 18 - B4B	
			Handfinish - 1 - 19 - B4B	
			Handfinish - 1 - 20 - B4B	
			Handfinish - 1 - 21 - B4B	
			Handfinish - 1 - 22 - B4B	<i>20.08.17</i>
			QC 7 - 10	
			QC 7 - 13	
			QC 7 - 14	
			QC 7 - 15	
			QC 7 - 17	
			QC 7 - 18	
			QC 7 - 19	
			QC 7 - 2	
			QC 7 - 28	
			QC 7 - 3	
			QC 7 - 30	
			QC 7 - 34	<i>20.08.17</i>
			QC 7 - 36	
			QC 7 - 37	
			QC 7 - 41	
			QC 7 - 47	
			QC 7 - 48	
			QC 7 - 51	
			QC 7 - 58	
			QC 7 - 59	
			QC 7 - 60	
			QC 7 - 9	
			QC 7 - 68	
			QC 7 - 50	
			QC 7 - 67	
			QC 7 - 40	
			QC 7 - 24	
			QC 7 - 43	
			QC 7 - 61	
			QC 7 - 81	
			QC 7 - 76	
			QC 7 - 79	
			QC 7 - 83	
			QC 7 - 82	
			QC 7 - 87	
160 Powdercoat - 1 White GI(A)- B4B <i>M BSHH69.</i>	5 pcs	0.00 0.30	Powdercoat - 1 - B4B	
			Powdercoat - 2 - B4B	
			Powdercoat - 3 - B4B	<i>20.08.17.</i>
			Powdercoat - 4 - B4B	
			Powdercoat - 5 - B4B	
			Powdercoat - 6 - B4B	
			Powdercoat - 7 - B4B	
			Powdercoat - 8 - B4B	
			Powdercoat - 9 - B4B	
			Powdercoat - 10 - B4B	
170 QC 3	5 pcs	0.00 0.00	QC 3 - 10	
			QC 3 - 13	
			QC 3 - 15	
			QC 3 - 17	
			QC 3 - 18	
			QC 3 - 2	
			QC 3 - 28	
			QC 3 - 3	

			QC 3 - 30	
			QC 3 - 34	
			QC 3 - 36	
			QC 3 - 41	
			QC 3 - 51	
			QC 3 - 58	DAS
			QC 3 - 59	58
			QC 3 - 68	9-89
			QC 3 - 9	
			QC 3 - 40	
			QC 3 - 19	
			QC 3 - 43	
			QC 3 - 24	
			QC 3 - 61	
			QC 3 - 81	
			QC 3 - 82	
			QC 3 - 87	
180 Small Fab - 2 - B4B		5 pcs	0.00 0.75	Small Fab - 1 - B4B
				Small Fab - 2 - B4B
				Small Fab - 3 - B4B
				Small Fab - 4 - B4B
				Small Fab - 5 - B4B
				Small Fab - 6 - B4B
				Small Fab - 7 - B4B
				Small Fab - 8 - B4B
				Small Fab - 9 - B4B
				Small Fab - Various 1 - B4B
190 QC 5		5 pcs	0.00 0.00	QC 5 - 10
				QC 5 - 12
				QC 5 - 17
				QC 5 - 18
				QC 5 - 19
				QC 5 - 22
				QC 5 - 24
				QC 5 - 3
				QC 5 - 43
				QC 5 - 49
				QC 5 - 51
				QC 5 - 58
				QC 5 - 68
				QC 5 - 9
				QC 5 - 50
				QC 5 - 30
				QC 5 - 40
				QC 5 - 61
				QC 5 - 81
				QC 5 - 82
200 Packaging 3-1 - Stock - B4B		5 pcs	0.00 0.00	Packaging 3 - 1 - B4B
				Packaging 3 - 2 - B4B
				Packaging 3 - 3 - B4B
				Packaging 3 - 4 - B4B
				Packaging 3 - 5 - B4B
				Packaging 3 - 6 - B4B
				Packaging 3 - 7 - B4B
				Packaging 3 - 8 - B4B
				Packaging 3 - 9 - B4B
				Packaging 3 - 10 - B4B
				Packaging 3 - 11 - B4B

AUG 17 2020

DAS
58
9-89
AUG 17 2020DAS
81
9-89

AUG 19 2020

DAS
28
9-89

AUG 19 2020

			Packaging 3 - 12 - B4B	
			Packaging 3 - 13 - B4B	
			Packaging 3 - 14 - B4B	
			Packaging 3 - 15 - B4B	
			Packaging 3 - 16 - B4B	
			Packaging 3 - 17 - B4B	
			Packaging 3 - 18 - B4B	
			Packaging 3 - 19 - B4B	
			Packaging 3 - 20 - B4B	
			Packaging 3 - 21 - B4B	
			Packaging 3 - 22 - B4B	
			Packaging 3 - 23 - B4B	
			Packaging 3 - 24 - B4B	
			Packaging 3 - 25 - B4B	
			Packaging 3 - 26 - B4B	
			Packaging 3 - 27 - B4B	
			Packaging 3 - 28 - B4B	
			Packaging 3 - 29 - B4B	
			Packaging 3 - 30 - B4B	
			Packaging 3 - 31 - B4B	
			Packaging 3 - 32 - B4B	
			Packaging 3 - 33 - B4B	
			Packaging 3 - 34 - B4B	
			Packaging 3 - 35 - B4B	
			Packaging 3 - 36 - B4B	
			Packaging 3 - 37 - B4B	
210 QC 21 - SA	5 pcs	0.00 0.00	QC 21 - SA - 21	DAS 21 AUG 19 2020
			QC 21 - SA - 70	9-89
			QC 21 - SA - 9	
			QC 21 - SA - 77	

Part Op 100 - (Bandsaw) Cut blanks: 12.150" long
 Descriptions: 110 - (HAAS CNC Vertical Machine) 1- Mill as per Folio FA297 Rev: AA & Dwg D3179-1 Rev: E
 120 - (QC2- Inspect parts off machine FA/FAIB)
 130 - (QC8- Inspect parts - second check)
 140 - (Chemical Conversion Coat per QSI005 4.1)
 150 - (QC7-Inspect Chemical Conversion Coat)
 160 - (White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum) START TIME: _____
 170 - (QC3- Inspect Part Finish)
 180 - (Small Fab) Assemble as per Dwg D3179
 190 - (QC5- Inspect part completeness to step on W/O)
 200 - (Identify as per dwg & Stock Location: _____)
 210 - (QC21- Final Inspection - Work Order Release)

C16899

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6201	T Extrusion	5.0625 ft (1.0125 ea)	100-Bandsaw - 1	S229069
D2372 117	Quick Release	10 pcs (2 ea)	180-Small Fab - 2 - B4B	S293952
D2444 127	Pip Pin Assembly	5 pcs (1 ea)	180-Small Fab - 2 - B4B	S244097 X7
MS21042L3 ST305	Nut	5 Ea (1 ea)	180-Small Fab - 2 - B4B	S296572
MS27039-1-13 ST280	Screw	5 Ea (1 ea)	180-Small Fab - 2 - B4B	S294512
NAS1149D0332J ST201	Washer	15 Ea (3 ea)	180-Small Fab - 2 - B4B	S292661

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Bandsaw - 1	D6201	5	19	0
180-Small Fab - 2 - B4B	D2372	10	7	0
	D2444	5	7	0
	MS21042L3	5	1,091	0
	MS27039-1-13	5	165	0
	NAS1149D0332J	15	846	0

Part Specifications

Specifications could not be found.

Plex 7/24/20 7:41 AM Dart.lajeunesse.marie

DART AEROSPACE LTD		Work Order: 211681
Description: Fwd Litter Tie Down Bracket		Part Number: D3179-1
Inspection Dwg: D3179	Rev: E	Page 1 of 1

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.00	+/-0.030	.998			VERN.	B18017739
R0.40	+/-0.030	.400			GP	Ref.
R0.38	+/-0.030	.375			Rad gage	Ref.
1.70	+/-0.030	1.700			VERN.	B18017739
Ø0.191	+0.005/-0.001	.190			GP	Ref.
10.500	+/-0.010	10.499			HG	31006
4.250	+/-0.010	4.249			"	"
Ø0.246	+0.005/-0.001	.245			GP	Ref.
1.50	+/-0.030	1.500			HG	31006
0.750	+/-0.010	.750			"	"
1.000	+/-0.010	1.001			VERN.	B18017739
4.00	+/-0.030	3.998			"	"
1.00	+/-0.030	1.002			"	"
1.38	+/-0.030	1.387			"	"
1.875	+/-0.010	1.88			"	"
2.125	+/-0.010	2.123			"	"
2.88	+/-0.030	2.876			"	"
3.31	+/-0.030	3.312			"	"
R0.375	+/-0.010	.375			RG	Ref.
R0.50	+/-0.030	.50			RG	Ref.
Ø0.191	+0.005/-0.001	.190			GP	Ref.
R0.25	+/-0.030	.25			RG	Ref.
R0.375	+/-0.010	.375			RG	Ref.
R0.38	+/-0.030	.375			RG	Ref.
12.00	+/-0.030	12.003			HG	31006
9.000	+/-0.010	9.002			"	"
7.50	+/-0.030	7.485			VERN.	B18017739
4.50	+/-0.030	4.500			"	"
2.88	+/-0.030	2.86			"	"
2.250	+/-0.010	2.252			HG	31006
1.000	+/-0.010	.997			VERN.	B18017739
0.50	+/-0.030	.498			"	"

Measured by: ALA	Checked by: DIP	QC Inspector:
Date: 20/08/02	Date: 20-08-04	Date:

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
A	09.04.05	New Issue P/O D3179-041	KJ/DD	
B	12.10.04	Dimension 0.750 was 1.750	KJ	
C	13.05.27	Dimensions revised per Dwg Rev D	KJ	
D	16.06.08	Dimensions revised per Dwg Rev E	KJ	
E	17.02.16	Dimensions rearranged	KJ	

Entered: _____ Date: _____

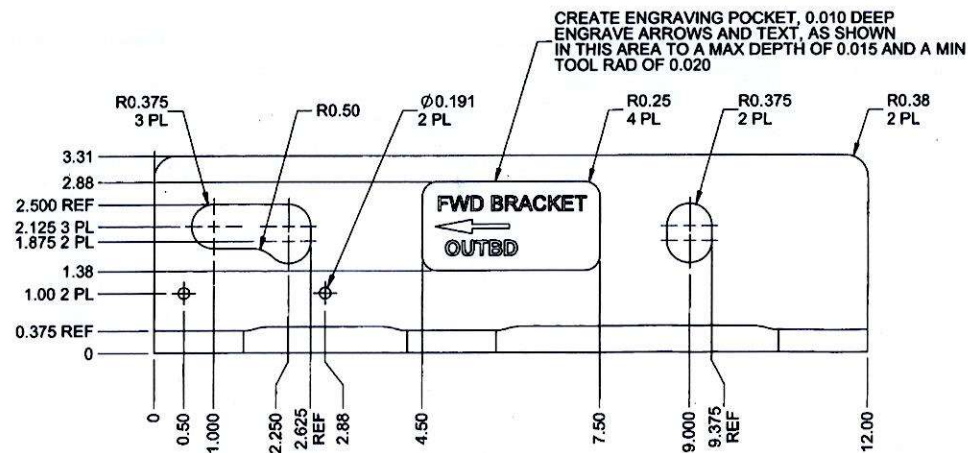
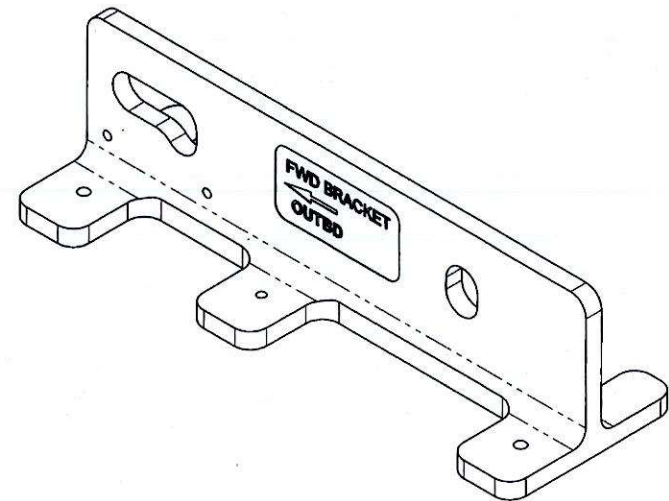
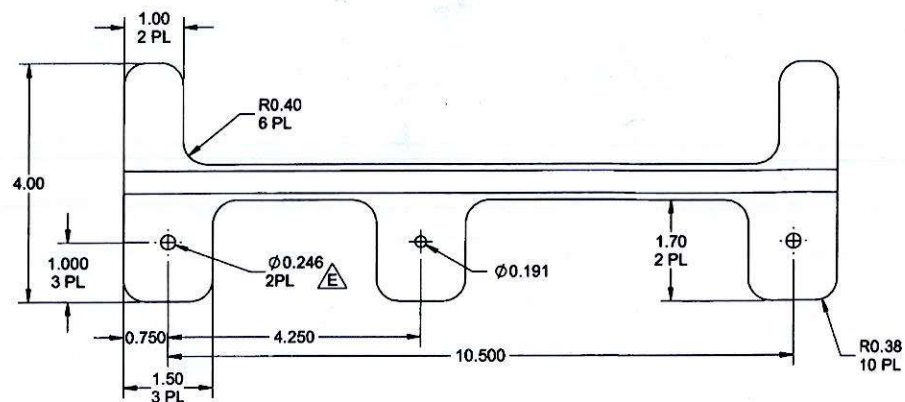


WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



CREATE ENGRAVING POCKET, 0.010 DEEP
ENGRAVE ARROWS AND TEXT, AS SHOWN
IN THIS AREA TO A MAX DEPTH OF 0.015 AND A MIN
TOOL RAD OF 0.020

D3179-1 TIE DOWN BRACKET

NOTES:

- 1) MATERIAL: MAKE FROM D8201-012 EXTRUSION (6061-T6/T6511 PER QQ-A-200/8)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.90 lbs

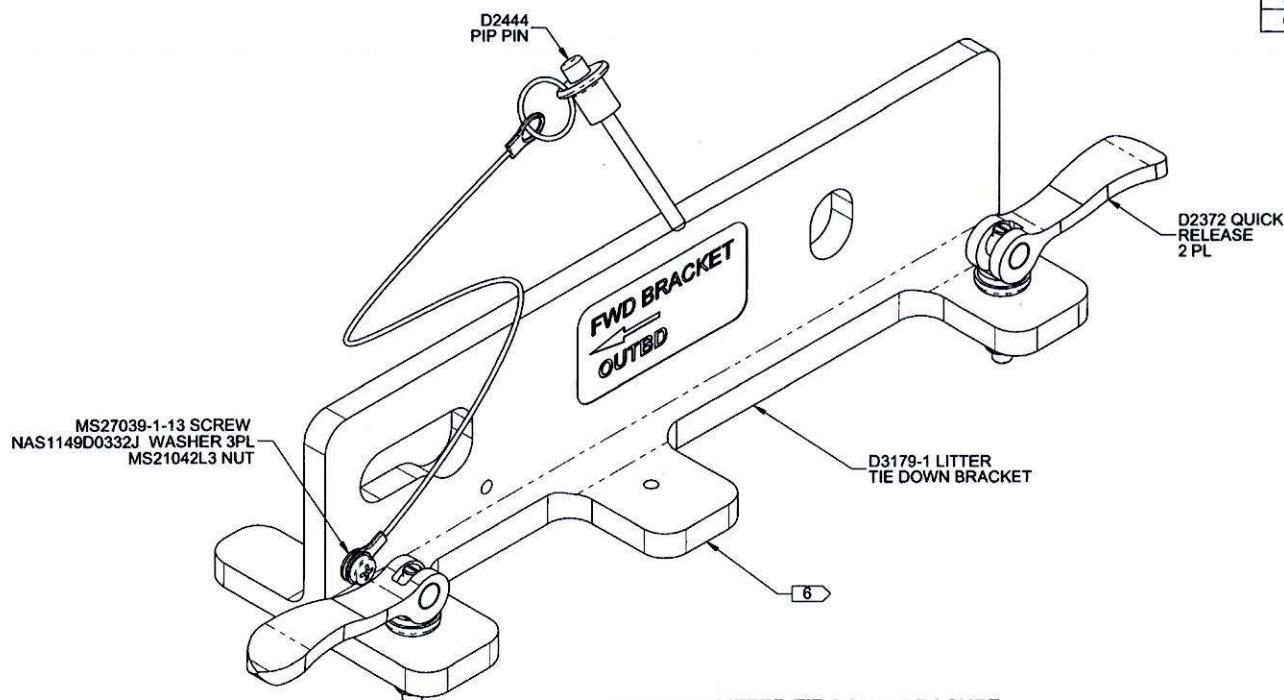
RELEASED
2016-04-18

APPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. E
MFG. APPR.	JLM	D3179	SHEET 2 OF 2
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	LITTER TIE DOWN BRACKET	NTS
DATE	15.11.12	COPYRIGHT © 1985 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

ITEM	QTY -041	P/N	DESCRIPTION
	X	D3179-041	LITTER TIE DOWN BRACKET
1	2	D2372	QUICK RELEASE
2	1	D2444	PIP PIN
3	1	D3179-1	LITTER TIE DOWN BRACKET
4	1	MS21042L3	NUT, SELF-LOCKING
5	1	MS27039-1-13	SCREW, PAN-HEAD
6	3	NAS1149D0332J	WASHER (AN960JD10L)



D3179-041 LITTER TIE DOWN BRACKET

- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3179-041" AND B/N "BXXXXXX" ON BOTTOM FACE PER QSI 044 6.1
 - 7) WEIGHT: 2.79 lbs

RELEASED
2016-04-18
EN 16-562

E	Ø0.246 WAS Ø0.242 (ZN C7-2). REASON: PAR15-415	MB	15.11.12
D	POSITION AND SHAPE OF LITTER CAPTURE SLOTS CHANGED (ZN B4-2, B8-2, C7-2). ADD ENGRAVING NOTE (ZN C4-2). REF CIR13-15	DB	13.03.22
C	ADD D3179-041 & PARTS LIST (ZN B6-1, D2-1). D3179-1 WAS D3179 (ZN A5-2). REMOVE ENGRAVE P/N	RF	08.11.07
B	REFORMAT DRAWING, FINISH WAS ANODIZE	DC	07.06.06
A	NEW ISSUE	RF	02.12.09
REV.	DESCRIPTION	BY	DATE

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	AJS	DRAWING NO.	REV. E
MFG. APPR.	JLM	D3179	SHEET 1 OF 2
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	LITTER TIE DOWN BRACKET	NTS
DATE	15.11.12	COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

APPROVED

8 7 6 5 4 3 2 1